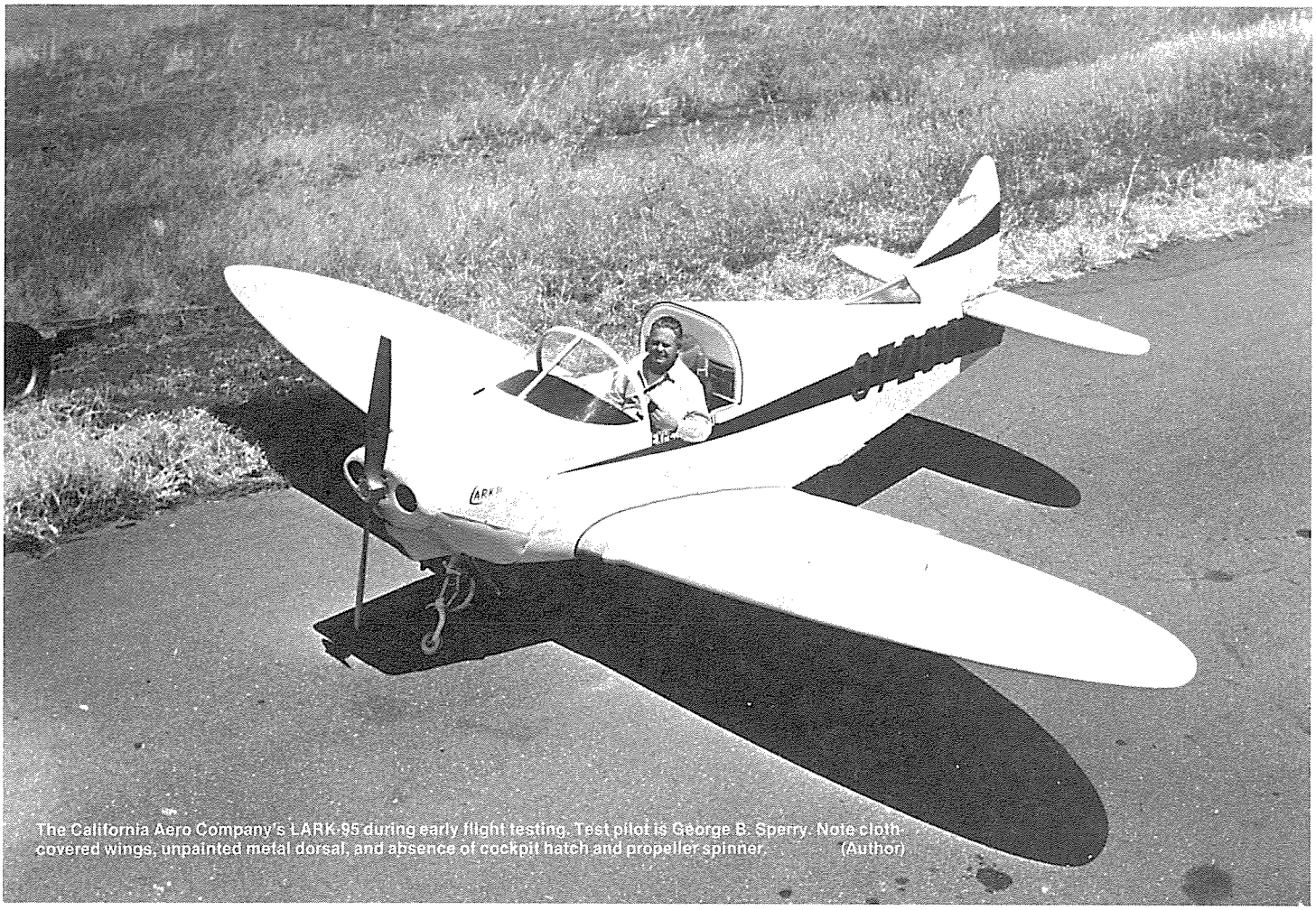


The California Aero Company's LARK-95 during early flight testing. Test pilot is George B. Sperry. Note cloth-covered wings, unpainted metal dorsal, and absence of cockpit hatch and propeller spinner. (Author)

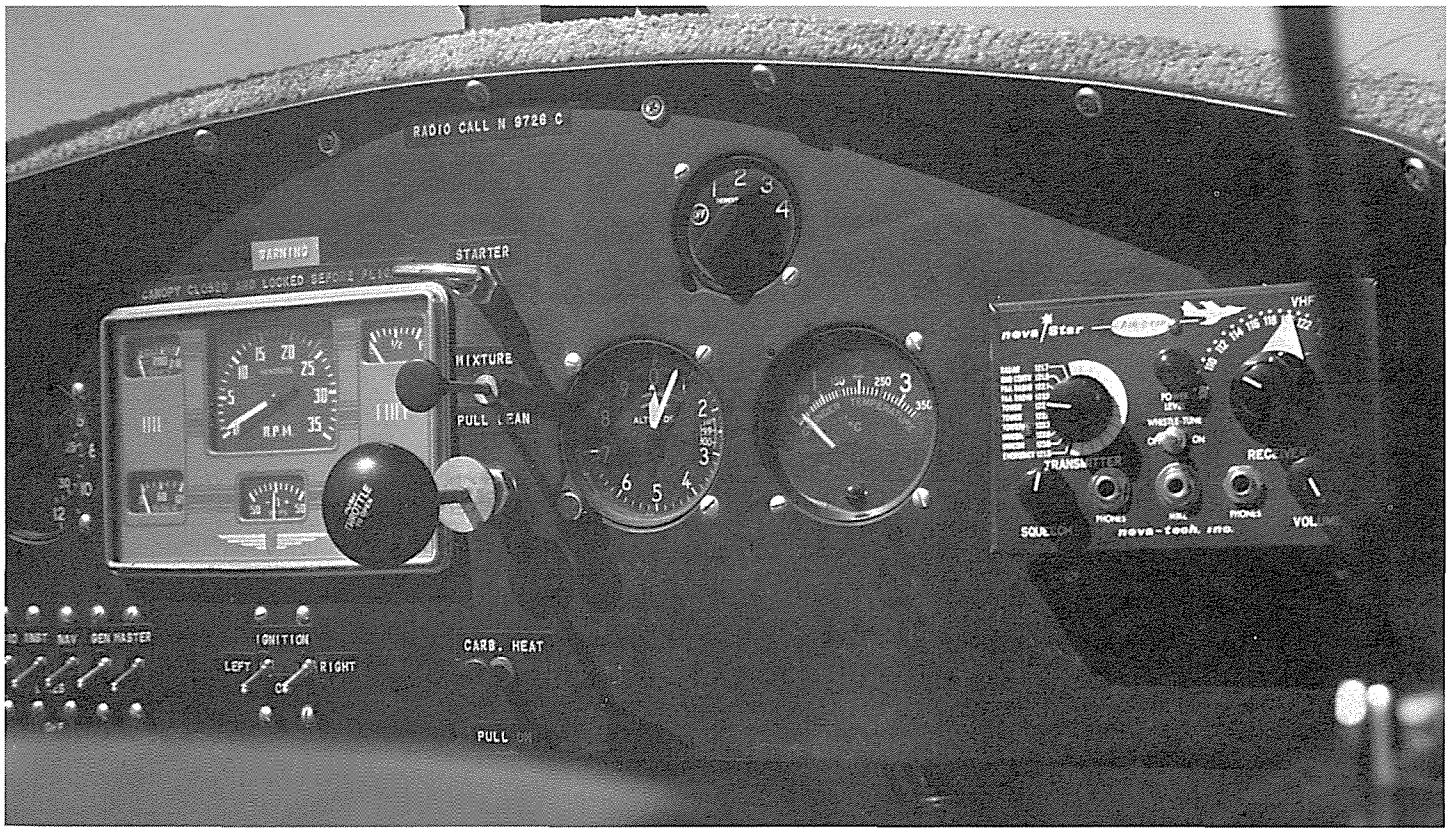
The LARK-95

by George E. Cull

The LARK-95 early in its flying career showing cloth-covered wings, metal dorsal, sliding hatch, metal cowl, and white and blue markings with red numbers. (Author)

In 1958, while the author was the airport manager of the Tracy Municipal Airport in Tracy, California, I met Ronald R. Logan and over a period of time we became friends. During our numerous conversations Logan learned that I had available the engineering data and drawings for the Culver Cadet and the old Culver PQ-8, the Army's World War II drone/target airplane. Logan looked through some of these papers and became fascinated with the idea of building an airplane from these plans with an eye to producing them in a factory in Tracy.

Logan borrowed one of the books of engineering information and a few drawings and soon sold nine persons on the idea that an aircraft could be built and a sales market developed. The California Aero Company was formed as a Joint Venture Partnership with Logan as president and general manager, myself as vice president and chief engineer, and Vincent E. Arganbright as secretary-treasurer and chief pilot.

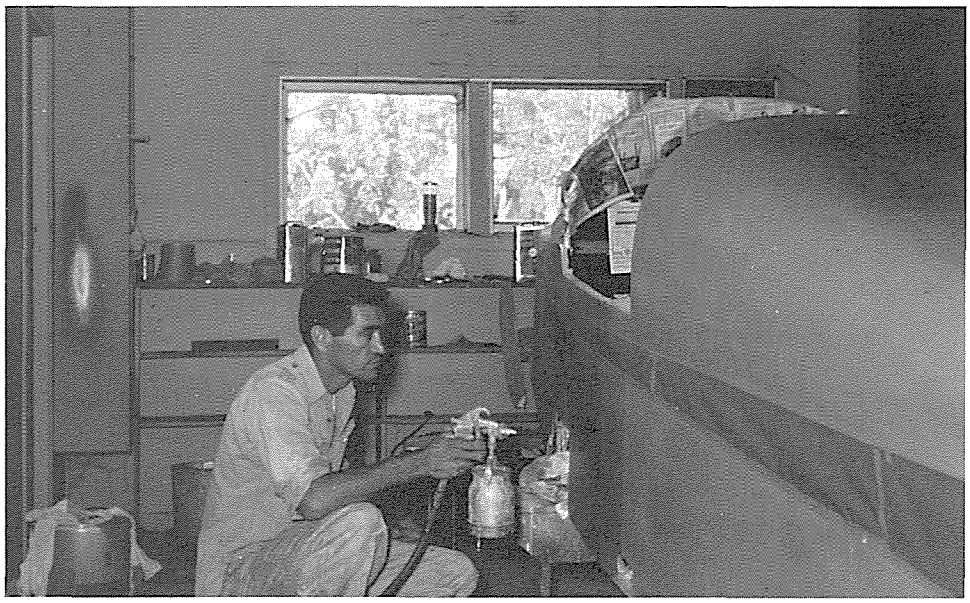


Early instrument panel of the prototype LARK-95. (Author)

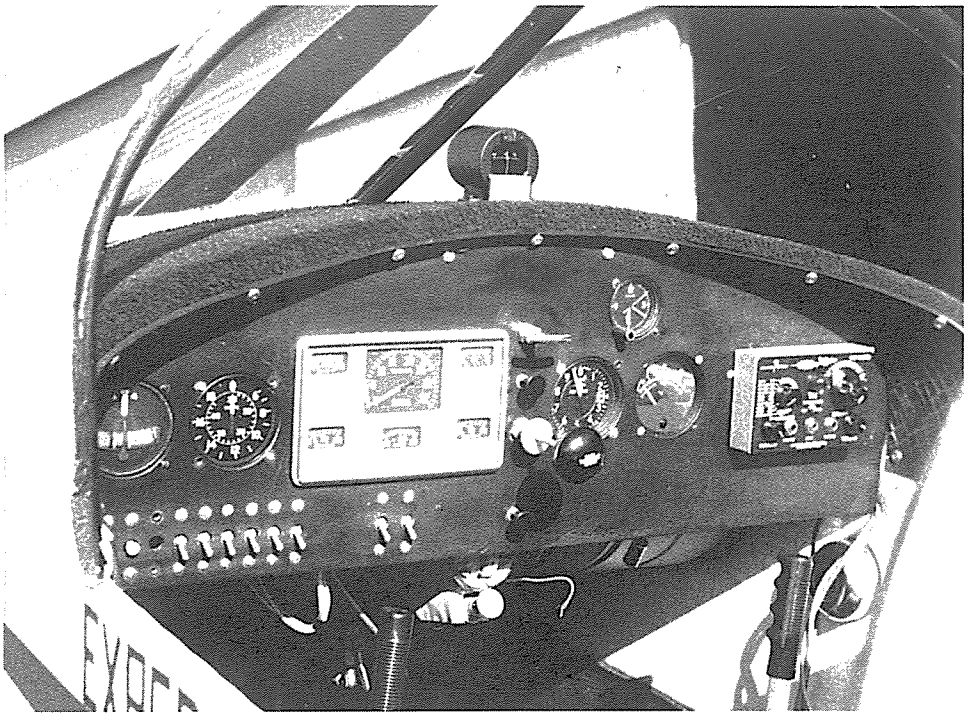
Logan first obtained the use of a former cement storage shed and equipped this "shop" with my home workshop tools and other borrowed equipment. Then, with me doing the letter-writing, parts ordering and other paperwork, Logan began cutting wood, aluminum, and steel tubing. Occasionally Logan had the good fortune to be assisted by Arganbright, one of the most skilled woodworkers available anywhere. Between these two men hours of fine work produced results and an aircraft took shape. The final assembly of the airplane was done in my rented hangar at Tracy Municipal Airport (while my Mooney Mite sat out in the weather). The FAA Manufacturing Inspector, Harry Socik, went over the airplane for the final time after having inspected and approved every detail part. The necessary forms and papers were signed in preparation for the maiden flight, the airplane finally given over to the loving care of the test pilot, George B. Sperry, all 260 pounds of him!

Sperry had been a flyer since the mid-1930s, starting his flying career at the old San Francisco Bay Aerodrome, and after a tour of duty with the Royal Air Force's "Eagle Squadron" and a few years as an unwelcomed guest of the German government, was completing his

Sperry landing the LARK-95 after successful first flight of 50 minutes. (Author)



Ronald R. Logan during painting of LARK-95 s/n 9501, N9726C, in September 1960. (Author)



Revised instrument panel of prototype LARK-95, N9726C. (Author)

Final configuration of prototype LARK-95 showing plywood and fibreglas-covered wings, fibreglas cowl, revised hatch, and chrome yellow paint with brown and orange stripes. (Author)

Final configuration of LARK-95 showing built-in dorsal. (Author)

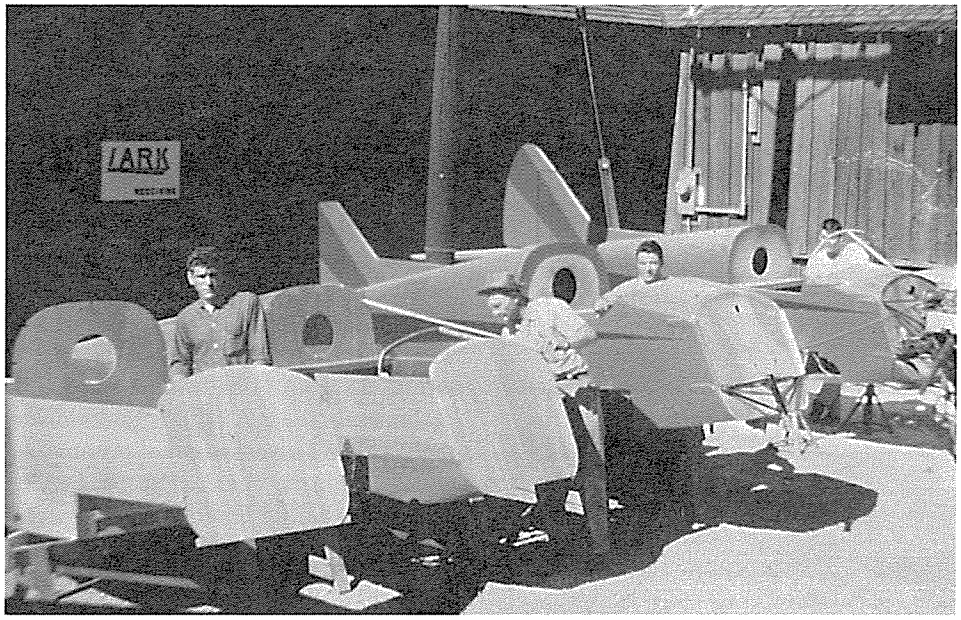
military career as part of the U.S. Sixth Army, Aviation Section, Stockton, California. Sperry's first love was the Supermarine "Spitfire" and Logan's pride and joy was the nearest thing to that machine now available. Sperry and the FAA Inspector went over the airplane's data, restrictions and limits, then Sperry "cranked-up," taxied out, and promptly took off. The first flight of this prototype, registered as N9726C, lasted approximately 50 minutes with no major bugs showing up. As George said, "The aircraft is a real jewel!"

This prototype airplane was soon flown by Sperry, Logan, Arganbright, Fred M. Holden, and myself with only one "scare" occurring at about 200 hours when a fuel sediment bowl valve allowed the fuel to leak out and an unscheduled landing had to be made at a duster's air strip. The valve was repaired and the tank refilled, and the flight continued uneventfully. The original prototype was painted all white with metallic dark blue trim and red identification numbers. The wing was cloth covered, the cowling was all metal, and the three landing gears were fitted with 5.00 x 4 wheels. For the first dozen or so flights there was no cockpit cover provided. Later a sliding hatch was fitted.

Over the next two years the airplane was flown through every test necessary to satisfy the FAA, finally officially being designated the LARK-95 to coincide with the old Culver system of numbering their designs (LCA, LFA, L-AR, L-AR-90, LARB). The LARK-95 was the "modernization" of the old PQ-8 design using a Continental C-90 engine rather than the Lycoming 0-235, which at the time the LARK was being built was no longer available. The two years were spent flying, redesigning, and rebuilding the prototype until the production model of the LARK-95 was ready to manufacture.

The final configuration of this prototype was painted chrome yellow with a chocolate brown horizontal stripe, a bright orange vertical stripe, flat black "anti-glare" nose, and white numbers. The wing had been redesigned and covered with plywood after a series of static tests had been successfully run, and a new complete fibreglas nose cowling fitted. The main landing gear wheels were changed to 5.00 x 5, a dorsal fin added, and a "fighter" style hatch was designed and built.

George Sperry climbing in LARK-95 cockpit for first flight in May 1961. Logan is in foreground on his way to hangar. He was so nervous he sat down in the hangar and never saw this first flight. (Author)



The Lark Aviation Corp. "production line" in August 1963, just before the Tracy, California, factory was closed. LARK-95 s/n 9502-9505 are shown. (Author)

Early LARK-95 insignia: blue LARK and red 95. (Author)

On December 29, 1961, the California Aero Company officially became Lark Aviation Corp., and Ronald Logan's "home-built" became the LARK-95, serial number 9501, N9726C. The sad end of this airplane came in a field near Demming, New Mexico, during a forced landing when the pilot ran out of fuel. Another aircraft using the same numbers was assembled from new and salvaged parts and is presently in the possession of a former Royal Air Force pilot, Royce Sullivan.

LARK-95 ATC 748
TECHNICAL DATA

Type:	Two place, open or closed, low wing land monoplane
Engine:	Continental C-90-12F 95 hp @ 2625 rpm
Power loading:	13.74 lbs./hp
Fuel capacity:	(80/87 octane) 20 U.S. gallons
Range:	390 miles, economy cruise 510 miles
Speed:	max. 145 mph cruise 132 mph stall 51 mph
Rate of climb:	1,000 fpm
Service ceiling:	16,250 ft.
Wing span:	26 ft. 11 in.
Length:	17 ft. 8 in.
Height:	6 ft. 10 in.
L.G. tread:	7 ft. 10.5 in.
Propeller dia.:	70 in.
Airfoil section:	NACA 3414 @ root, 3408 @ tip
0° Sweepback:	@ 27.3% chord
Wing angle of incidence:	1.5°
Wing dihedral:	5°
Total wing area:	120.388 sq. ft.
Wing loading:	10.84 lbs./sq. ft.
Aileron span:	5 ft. 2.75 in.
Total aileron area:	9.22 sq. ft.
Each aileron area:	4.61 sq. ft.
Aileron travel:	15° down, 17° up
Stabilizer:	12.40 sq. ft.
Elevator:	5.26 sq. ft.
Elevator tab:	.31 sq. ft.
Elevator travel:	30° down, 21° up
Elevator tab travel:	19.5° down, 19.5° up
Fin:	4.84 sq. ft.
Rudder:	3.74 sq. ft.
Rudder travel:	35° right, 32° left
Weights—Empty:	700 lbs.
Gross:	1,305 lbs. (later raised to 1,475 lbs.)

ABOUT THE AUTHOR

George E. Cull was born in Denver, Colorado, in 1919, and attended schools in San Francisco. He was disabled by polio in 1930. George attended Samuel Gomper's Trades School in aviation for four years, then worked for Hammond Aircraft, Avion (on XP-79), Rheem Manufacturing (on the Ryan FR-1 and FR-2), and with Lawrence W. Brown on his last design. Cull became Chief Engineer for the California Aero Company which became Lark Aviation Corp., and Helton in Mesa, Arizona, on the LARK-95 airplane. A licensed private pilot since 1948, George is presently building a home-built amphibious airplane.